APPLICATION

FOR

UNITED STATES LETTERS PATENT

TITLE: METHOD AND SYSTEM FOR DYNAMICALLY
          SUPERIMPOSING ON A BACKGROUND OBJECT
          DOWNLOADED THROUGH THE INTERNET

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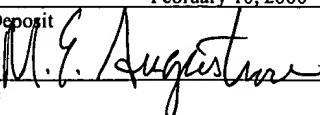
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Method and system for dynamically superimposing multimedia on a background object downloaded through the Internet

FIELD OF THE INVENTION

This invention relates to advertising over the Internet.

BACKGROUND OF THE INVENTION

Many Internet sites make provision for the inclusion of advertisement banners in their web pages. In such case, a predetermined area of the web page is designated for the inclusion of an advertising banner that is downloaded from a specified web server whose address is also specified when the web page is designed. If the advertising banner itself changes, then the change will automatically be reflected in the web page reaching a client without requiring any change to the web page downloaded by the client. Moreover, the need to allocate an area of the web page to the advertisement banner limits the area of the web page that is available for conveying other information specific to the web site. Thus, the web site must sacrifice some of its own valuable area in order to support the advertising banner.

Advertising banners are designed to appeal to the web surfer in the hope that the advertised product or service will be of sufficient interest to the web surfer that he will be inclined to click on the advertisement banner and, by so doing, enter the referent web site. In fact, user reaction to static or multimedia based banners is very low and simply not comparable to other advertising and direct mail response rates.

Classical banners can convey only a simple static message. As noted above, usually all presentations are predefined and pre-created. To this extent, they are no different than an advertisement stuck to a car or bus. They are further usually limited to a limited amount of information. For example, some portals limit the banner weight to 9-12 k bytes.

Animation programs are known which allow animated objects to be created within a predefined window. Such objects may, if desired, have the property that any area within the boundary of the window not actually overlayed by the object is transparent. So far as is known, it has not been suggested to embed animation objects in lieu of a conventional advertising banner in order to present an animated advertisement to the web surfer. However, even if such were done, this would still have to be accommodated in the web page and so would not address the loss of useful area available to the web site for conveying its own proprietary information.

It would therefore be desirable to allow an animated advertisement to be associated with a web page for conveying through the web without requiring that space be reserved in the web page for accommodating the animated advertisement. Furthermore, the dynamic nature of an animated advertisement would be improved and better adapted to capture a user's attention if its location relative to the host web page were also dynamic. This would be even further enhanced if the timing of the dynamic banner were itself unpredictable to the end-user. It would also be desirable to allow the advertisement to be shown without requiring special action on the part of the web surfer.

SUMMARY OF THE INVENTION

It is therefore an object of the invention to provide an animated advertisement for use with a web page, which does not require that space be reserved in the web page for accommodating the animated advertisement.

According to a first aspect of the invention there is provided a method for presenting an animated advertisement on a web page, comprising the following steps all carried out by a web server:

(a) obtaining a web page layer adapted to contain an animated advertisement content having at least one object adapted to run across a web page downloaded to a client computer connected to the web server without obscuring or disabling portions of the web page lying outside a boundary of said objects at any given instant of time, and

(b) downloading said web page layer to the client computer for displaying the animated advertisement content in association with the web page.

According to a specific embodiment, the web page and the web page layer are downloaded to the client computer by the same web server. More generally, however, the web page and the web page layer may be downloaded to the client computer by different web servers.

According to a second aspect of the invention, there is provided a method for presenting an animated advertisement on a web page, comprising the following steps all carried out by a client computer connected to a web server:

(a) downloading a web page from the web server,

(b) superimposing over said web page a web page layer containing the animated advertisement having at least one object adapted to run across the web page without obscuring or disabling portions of the web page lying outside a boundary of said objects at any given instant of time, and

(c) applying a trigger signal for starting the animated advertisement.

Preferably, the web page layer is a DHTML layer containing an animated object adapted to be viewed in association with the web page. As the object moves relative to the web page, only those portions of the web page overlaid at any instant of time by the object are obscured.

BRIEF DESCRIPTION OF THE DRAWINGS

In order to understand the invention and to see how it may be carried out in practice, a preferred embodiment will now be described, by way of non-limiting example only, with reference to the accompanying drawings, in which:

Fig. 1a is an exploded pictorial representation of a web page and a web page layer bearing an animated advertisement;

Fig. 1b is a pictorial representation of the web page layer shown in Fig. 1a superimposed on the web page therein;

Fig. 2a is an exploded pictorial representation of the web page and a subsequent frame of the web page layer;

Fig. 2b is a pictorial representation of the web page layer shown in Fig. 2a superimposed on the web page therein;

Fig. 3 is a flow diagram showing the principal operating steps associat d with a method carried out by a web server in accordance with the invention;

Fig. 4 is a flow diagram showing the principal operating steps associated with a method carried out by a client machine in accordance with a first embodiment of the invention;

Fig. 5 is a flow diagram showing the principal operating steps associated with a method carried out by a client machine in accordance with a second embodiment of the invention;

Fig. 6 is a block diagram showing functionally a system including a web server and a client machine for implementing the invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Figs. 1a and 2a show a web page 10 written using HTML in known manner. Independently, an animated advertisement 11 is embedded within a separate web page layer 12 using known DHTML technology. The animation itself is likewise accomplished using off-the-shelf vector graphic tools and is not *per se* a feature of the invention. In a preferred embodiment reduced to practice, the animation was prepared using Flash, this being a proprietary vector graphics program produced and distributed by Macromedia Inc. Details and virtual examples can be seen in their web site http://www.flash.com/. Flash is a registered trademark of Macromedia Inc.

A cow 13 in the animated advertisement 11 constitutes at least one object that is adapted to run across the web page without obscuring or disabling portions of the web page 10 lying outside a boundary 14 of the cow 13 at any given instant of time. The animated cow 13 may move within an imaginary rectangle within the web page layer 12 of just sufficient dimension to accommodate the cow or the rectangle may be the whole web page layer 12. This is not in itself significant because, as noted above, only the boundary or contour of the object constituting the cow 13 determines what portions, if any, of the underlying web page 10 are obscured and disabled. Specifically, and most importantly, any portions of the web page 10 outside the boundary 14 of the cow 13 at any instant of time are visible to the web surfer and are fully enabled. In fact, those portions of the web page 10 within the boundary 14 of the cow 13 at any instant of time, whilst obscured, are still enabled albeit instantaneously inaccessible to the web surfer. It is, often desirable that as the animation runs, critical parts of the web page remain visible even as the animation object or objects move across the web page. To this end, at least part of the animation object or objects may be translucent.

Figs. 1b and 2b show pictorially the web page layer 12 shown in Figs. 1a and 2a, respectively, superimposed on the web page 10 therein. The cow 12 moves across the web layer, obscuring different portions of the web page at successive instants of time. However, all other portions of the web page 10 remain visible and enabled.

Referring to Fig. 3 there will be described a method for presenting an animated advertisement on a web page, comprising the following steps all carried out by a web server. A web page is initially downloaded to a client computer connected to the web server. Thereafter, preferably during idle communication time of the client computer, the animated advertisement layer content is downloaded to the client computer. As noted above, this may be done by the same web server or by a different web server. The animated advertisement contains at least one object adapt d to run across the web page without obscuring or disabling portions of the web page lying outside a boundary of said objects at any given instant of time.

Having been thus downloaded, the animated advertisement remains in memory within the client computer and is disabled such that the client user (or web surfer) sees only the web page. In order for the animated advertisement to appear superimposed on the web page, it must first be triggered. This can be done in

5 several ways. Thus, a trigger signal may be sent by the web server to the client for starting the animation a predetermined time interval after downloading to the client computer. Here, too, the trigger signal can be sent by a completely independent web server if required. Alternatively, the animated advertisement may include an integral trigger signal for running the animated advertisement a predetermined time

10 after being downloaded to the client. According to yet another possibility, a mobile program, such as a Java applet, may be downloaded to the client computer for creating the trigger signal. Java is a registered trademark of Sun Microsystems Limited. In any event, the trigger signal may be independent of any activity performed by a user of the client computer. Alternatively, the trigger signal may be

15 generated consequent to predetermined activity by the user, such as dragging the mouse and so on.

Figs. 4 and 5 show flow charts of methods carried out by the client computer for presenting an animated advertisement on a web page according to different preferred embodiments. A web page is first downloaded from the web server. A

20 "web page layer" containing an embedded animated advertisement is then superimposed over the web page. The animation is then triggered so that one or more animation objects run across the web page without obscuring or disabling portions of the web page lying outside a boundary of the animation objects at any given instant of time. Typically, the web page layer is itself downloaded from a web

25 server and contains links to animated objects, which themselves are downloaded to the client computer from one or more web servers. In such manner, the animated advertisement content may be added to the web page layer prior to superimposing on to the web page.

In order for the animated advertisement to appear superimposed on the web

30 page, it must first be triggered. This can be done in several ways. Thus, a trigger

signal may be sent by the web server to the client for starting the animation a predetermined time interval after downloading to the client computer. Alternatively, the animated advertisement may include an integral trigger signal for running the animated advertisement a predetermined time after being downloaded to the client. According to yet another possibility, a mobile program, such as a Java applet, may be downloaded to the client for creating the trigger signal. Java is a registered trademark of Sun Microsystems Limited.

Fig. 5 shows yet a further embodiment where the animation is a separate application program run independent of the web server although it may, if desired, be downloaded from the web server, either once and for all or together with each web page. Running the application program compiles a "pseudo-web page layer" and applies the trigger signal for running the animated advertisement. The trigger signal may be independent of any activity performed by the client. Alternatively, the trigger signal may be generated consequent to predetermined activity by the user, such as dragging the mouse and so on. In this embodiment, the animated object may be loaded locally rather than being downloaded from the web server. However, it is conceptually identical to the web page layer described above and for this reason the term "web page layer" is used herein and in the appended claims without regard to the actual source thereof.

Fig. 6 is a block diagram showing functionally a system designated generally as 20 comprising a web server 21 and a client computer 22 coupled thereto via the Internet 23. The web server 21 comprises a processor 24 and a memory 25 coupled thereto for storing therein the web page 10 and the web page layer 12 containing the animated advertisement. A communication mechanism 26 is coupled to the processor 24 for successively downloading the web page 10 and the web page layer 12 to the client computer 22. A clock 27 is coupled to the processor 24 and a triggering unit 28 is responsively coupled to the clock 27 for sending a trigger signal to the client computer 22 for starting the animated advertisement

The client computer 22 comprises a processor 30 and a memory 31 coupled thereto and adapted to store therein the web page 10 and the web page layer 12 containing the animated advertisement. A communication mechanism 32 is coupled to the processor 30 for downloading the web page 10 from the web server 21 for storage in the memory 31. A triggering unit 33 coupled to the processor 30 applies a trigger signal for starting the animated advertisement, and an overlay mechanism 34 is coupled to the triggering unit 33 and is responsive to the trigger signal for superimposing the web page layer 12 over the web page 10.

It will be understood that other modifications than those specifically described will be apparent to those skilled in the art. Thus, for example, whilst in the preferred embodiment, the animation is created using a vector graphics program, the invention equally well contemplates the use of video clips and other graphics formats.

It will also be understood that the web server and the client computer according to the invention may be suitably programmed computers. Likewise, the invention contemplates a computer program being readable by a computer for executing the method of the invention. The invention further contemplates a machine-readable memory tangibly embodying a program of instructions executable by the machine for executing the method of the invention.

In the method claims that follow, alphabetic characters used to designate claim steps are provided for convenience only and do not imply any particular order of performing the steps.